APRIL/MAY 2024

BEL32/CEL32 — ANALOG ELECTRONICS

Time : Three hours Maximum : 75 marks

LIBRARY

SECTION A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. What is an amplifier?

2. Define Power dissipation.

3. What is Distortion?

4. What is bandwidth?

5. What is CMRR?

6. What is meant Slew rate?

7. Draw the PIN diagram of OP-AMP.

8. Draw the circuit of integrator.

9. What is positive feedback?

10. Define Barkhausen criterion for oscillation.

SECTION B — (5 × 5 = 25 marks)

Answer ALL the questions.

11. (a) Explain the action of emitter follower.

Or

(b) Explain the class A power amplifier.

12. (a) Explain the distortion and bandwidth in an amplifier.

Or

(b) Explain the general characteristics of negative feedback amplifier.

13. (a) Derive an expression for differential gain in OP-AMP.

Or

(b) Explain the role of offset parameters.

14. (a) Explain the action of sinewave generator using OP-AMP.

Or

(b) Explain the action of differentiator using OP-AMP.

15. (a) Explain the Phase shift oscillator.

Or

(b) Explain the UJT as relaxation oscillator.

INDUSTRIES ARTS & SCIENCE COLLEGE LIBRARY

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain the working of RC coupled amplifier.

17. Describe the effect of negative feedback on gain and stability.

18. Discuss the principles of adder using Op-Amp.

19. Explain the working of square waveform generator.

20. Explain the action of monostable multivibrator.

———————